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**United States Patent [19]**

Bertin et al.

**[11] Patent Number:** 6,011,804  
**[45] Date of Patent:** Jan. 4, 2000**[54] DYNAMIC BANDWIDTH RESERVATION FOR CONTROL TRAFFIC IN HIGH SPEED PACKET SWITCHING NETWORKS****[75] Inventors:** Olivier Bertin, Nice; Claude Galand, Cagnes sur Mer; Olivier Maurel, Le Cannet, all of France**[73] Assignee:** International Business Machines Corporation, Armonk, N.Y.**[21] Appl. No.:** 08/771,333**[22] Filed:** Dec. 16, 1996**[30] Foreign Application Priority Data**

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**[51] Int. Cl.<sup>7</sup>** ..... H04J 3/16; H04L 12/28; G01R 31/08**[52] U.S. Cl.** ..... 370/468; 370/468; 370/400; 370/230; 370/236**[58] Field of Search** ..... 370/254, 255, 370/256, 230, 237, 400, 468, 351, 238, 396, 412, 410, 522, 252, 253, 236; 395/11,

200

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A method and system for reserving dynamically and in priority for each link of the network the exact amount of bandwidth necessary for the transmission of the network control traffic. An evaluation of the expected control traffic on each link of the network is performed in order to allocate a sufficient but minimum fraction of the link bandwidth and for allocating the maximum available bandwidth for the user traffic.

**3 Claims, 9 Drawing Sheets**